REMARKS/ARGUMENTS

1. Claims 1-6 are stated to be allowable.

2. Claims 7, 8, and 10 are rejected under 35 U.S.C. § 102(b) as anticipated by Dent '358. This basis for rejection is traversed, because Dent does not show, suggest or hint at the recitations of claim 7. Claim 7 is amended to remove unnecessary punctuation.

More particularly, Examiner directs attention to Dent FIGURE 10. Dent states (column 10, beginning at line 26,

> "A formation at a ground station of the Time-Division-Multiplexed feederlink signal according to one embodiment of the invention will now be described with reference to FIGURES 10 and 11. Referring to FIGURE 10, signals for transmission using the narrow bandwidth, narrow beamwidth beams are applied to a beam forming matrix computer 200,"

while at column 10, lines 58,

> "In parallel, a coarse beam former matrix computer 201 has a number of inputs for signals to be radiated using wider beamwidth beams. Each input signal in this case comprises a plurality of signals occupying a combined bandwidth that may be wider than the beamwidth of the narrow beams."

Claim 7 as amended recites inter alia

> ``receiving <u>unguided electromagnetic radiation</u> including (a) a plurality of said independent signals having bandwidths suitable for audio use, each of said

independent signals being modulated onto a subcarrier which is in turn modulated onto a carrier and (b) said wideband signals, to thereby produce guided electromagnetic energy signals representing combined wideband signals and narrowband independent channels;''

where the received signal is "unguided electromagnetic radiation." It is not at all clear that the ground station to which FIGURE 10 of Dent relates would receive its signals in such a fashion, and in any case Dent does not so state, indicate, suggest or hint. Dent's FIGURE 10 is directed toward generating the uplink signal, not on the use or application of the uplinked signal, and FIGURE 10 would not be expected to include matter for such purpose. Also, there is no suggestion that the information signals as received in Dent FIGURE 10 are modulated onto subcarriers or carriers as recited in claim 7. Claim 7 thus distinguishes over Dent for this reason taken alone.

In addition, claim 7 recites inter alia

channelizing said signals representing combined wideband signals and narrowband independent channels, to thereby extract separated independent narrowband signals;

channelizing said signals representing combined wideband signals and narrowband independent channels, to thereby extract separated wideband signals;

combining those of said separated independent narrowband signals and said separated wideband signals which are associated to be downlinked over a particular downlink antenna beam, to thereby produce antenna beam signals;

Examiner at the bottom of page 2 of the Office Action appears to suggest that items 200 and 201 of Dent extract

separated wideband signals, but of course the arrangement of FIGURE 10 of Dent directly receives separated narrowband and wideband signals, so there is no need in Dent FIGURE 10 to separate narrowband signals and wideband signals from combined signals, as recited in claim 7. Consequently, the Dent arrangement of FIGURE 10 includes no steps equivalent to the two "channelizing" steps of claim 7. Claim 7 distinguishes over Dent for this reason taken alone.

Claim 7 further recites inter alia

> ``combining those of said separated independent narrowband signals and said separated wideband signals which are associated to be downlinked over a particular downlink antenna beam, to thereby produce antenna beam signals;
>
> beamforming said antenna beam signals to produce plural antenna element guided wave signals;''

Note that in claim 7, the "combining" step results in production of "antenna beam signals," and that the same "antenna beam signals" are then beamformed to produce antenna beam signals. This establishes the signals on which the beamforming is performed according to the claim 7 aspect of the invention. The "combining" is done "first" and the "beamforming" is performed at a "later" or subsequent step. This is not what is found in Dent FIGURE 10. Dent first beamforms the narrowband and wideband signals in items 200 and 201, and then adds the resulting beamformed narrowband and wideband signals in item 203. There is no suggestion in Dent of the order or sequence recited in claim 7. Claim 7 distinguishes over Dent for this reason taken alone.

Consequently, there are several major differences between the recitations of claim 7 and that which is shown by Dent. In the presence of several material differences between the claimed invention and the §102 reference, the rejection of claim 7 fails, and claim 7 is patentable in a §102 sense over Dent.

Claims 8 and 10 depend from patentable claim 7, and should be patentable therewith.

3. Claim 9 is rejected under 35 U.S.C. §103(a) as unpatentable over Dent in view of Lazaris-Bruenner et al. Examiner bases his argument on Dent anticipating the underlying parent claim 7. Since this is not so, Examiner's argument in relation to claim 9 fails, and claim 9 is patentable in a §103 sense.

4. Reconsideration and allowance are requested.

5. No fee is believed to be required for this amendment. Please charge any other fees to deposit account 50-2061.

FOR THE APPLICANT(S)

by William P Meise

William H. Meise
Attorney for Applicant
Reg. No. 27,574

December 20, 2004
Duane Morris LLP
P.O. Box 5203
Princeton, NJ 08543-5203
609-631-2453